

REMARKS

By the present amendment, claims 2 and 3 have been amended to further clarify the concepts of the present invention. Support for the amendment to independent claim 3 may be found, among other places, on lines 10-12 of page 9 of the subject specification. Entry of these amendments is respectfully requested.

In the Office Action, claims 1 and 4 were rejected under 35 USC § 102(b) as being anticipated by the PCT patent publication to Naraya. In making this rejection, it basically was asserted that the cited publication teaches a solid electrolytic capacitor having the structure and foil composition as claimed. Reconsideration of this rejection in view of the above claim amendments and the following comments is respectfully requested.

For the purposes of this response since only a brief abstract of the cited PCT patent publication to Naraya was available, it is assumed that this publication corresponds to U.S. Patent No. 6,515,847 to Naraya in terms as having the same disclosure. From a careful review of this patent, it is submitted that the patent does not teach or suggest an electric double layer capacitor as asserted in the Action and as presently claimed.

More particularly, attention is specifically directed to the disclosure of the Naraya patent at lines 63 et seq of column 3 relative to the film layer on the cathode foil in the presently claimed invention. In terms of the composition recited in the claims, it is submitted that the characterization of its teachings in the Action relative to the claimed subject matter is inaccurate as the patent does not disclose a titanium-containing compound metal nitride as claimed and as exemplified by the materials of dependent claim 2. That is, the patent disclosure of titanium nitride (TiN) and the like is not the same as a nitride of a titanium-containing compound as recited in claim 1 and as exemplified by aluminum titanium nitride, chromium titanium nitride, zirconium titanium nitride as recited in claim 2.

For the reasons stated above, withdrawal of the rejection under 35 U.S.C. § 102(b) and allowance of claims 1 and 4 over the cited Naraya patent publication are respectfully requested.

Claim 2 was rejected under 35 USC § 103(a) as being unpatentable over the previously cited PCT patent publication to Naraya in view of the '788 Japanese patent publication. In making this rejection, the Naraya publication was relied upon as in the above rejection and the '788 publication was asserted to teach an electrode foil coating of zirconium titanium nitride. It then was asserted that it would be apparent to one of ordinary skill in the art to use such an electrode foil in

the capacitor according to the Naraya publication. Reconsideration of this rejection in view of the above claim amendments and the following comments is respectfully requested.

The above remarks relative to the teaching deficiencies of the Naraya publication are reiterated with regard to this rejection. It is submitted that the '788 publication does not supply these teaching deficiencies with respect to the subject matter of amended claim 2.

More particularly, from the abstract of the '788 publication, its disclosure apparently is directed to the use of nitrides, oxides or carbides of titanium, among other metals, on the cathode foil of an electrolytic capacitor. A translation of paragraph 9 of the publication is as follows:

[0009] In addition, in the above-mentioned example, although the oxide of Zr or the nitrogen object of Ti was used, even if it uses the combination of a kind of particle or two or more sorts of particles among the metal simple substance of Ti or Zr or Hf or Nb, and aluminum or the oxide of this metal, a nitride, and carbide in addition to this, the same effectiveness is acquired.

Thus, it is submitted that the teachings of the cited '788 publication are no more relevant to the claimed subject matter than the Naraya publication. Therefore, the same considerations as were discussed above with regard to the first rejection over

the publication to Naraya are applicable to this rejection as well.

For the reasons stated above, withdrawal of the rejection under 35 U.S.C. § 103(a) and allowance of claim 2 over the cited patent publications are respectfully requested.

Claims 1, 2 and 4 were rejected under 35 USC § 103(a) as being unpatentable over the patent to Inoue et al in view of the '214 Japanese patent publication. In making this rejection, it was asserted that the cited Inoue et al patent teaches the basic structure of an electrolytic solid capacitor in terms of foils and a separator as claimed. Although it was acknowledged that the Inoue et al patent does not specifically teach the film coating for the cathode foil as claimed, it was asserted that such would be apparent to one of ordinary skill in the art from the teachings of the '214 publication relative to a film coating of a carbon nitride of titanium and the like for a capacitor electrode of aluminum. Reconsideration of this rejection in view of the above claim amendments and the following comments is respectfully requested.

It is submitted that the patent to Inoue et al and the '214 Japanese patent publication, whether taken singly or in combination, do not teach or suggest the solid electrolytic capacitor as set forth in independent claim 1. As was

acknowledged in the Action, the Inoue et al patent does not specifically teach the film coating for the cathode foil as claimed. From the brief abstract of the cited '214 Japanese patent publication, it apparently relates to the use of a carbon nitride of titanium, among other metals, on the aluminum cathode foil of a capacitor.

As can be noted from the claim amendments herein, claim 2 no longer recites titanium carbonitride as being included in titanium-containing compound metal nitrides and thereby distinguishes the claimed subject matter over the teachings of the cited '214 publication. Accordingly, withdrawal of the rejection under 35 U.S.C. § 103(a) and allowance of claims 1, 2 and 4 over the cited patent publications are respectfully requested.

Claims 3 and 5 were rejected under 35 USC § 103(a) as being unpatentable over the previously cited patent to Inoue et al in view of the European patent publication to Ryazantsev et al. In making this rejection, again the cited Inoue et al patent was relied upon for the teachings as asserted above. The Ryazantsev et al publication was then asserted to teach a film coating of a titanium nitride with an underlying film coating of titanium for a capacitor electrode of aluminum. Reconsideration of this rejection in view of the above claim amendments and the following comments is respectfully requested.

The above remarks relative to the teaching deficiencies of the Inoue et al patent are reiterated with regard to this rejection. It is submitted that the Ryazantsev et al publication does not supply these deficiencies as it only appears to teach a film coating of a titanium nitride with an underlying film coating of titanium for an aluminum capacitor electrode. Among other things, the publication does not teach, as now is recited in amended claim 3, a solid electrolytic capacitor having a cathode foil coated with a film comprising a titanium nitride layer and a titanium layer underlying the titanium nitride layer, the film formed on the cathode foil continuously varying from the titanium nitride layer to the titanium layer toward the cathode foil. As is set forth on page 9 of the specification, this characteristic of the film on the cathode foil results in no definite interface being present between the titanium nitride layer and the titanium layer.

For the reasons stated above, withdrawal of the rejection under 35 U.S.C. § 103(a) and allowance of claims 3 and 5 as amended over the cited patent publications are respectfully requested.

In view of the foregoing, it is submitted that the subject application is now in condition for allowance and early notice to that effect is earnestly solicited.

In the event this paper is not timely filed, the undersigned hereby petitions

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for an appropriate extension of time. The fee for this extension may be charged to Deposit Account No. 01-2340, along with any other additional fees which may be required with respect to this paper.

Respectfully submitted,

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